

Claims

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1. A portable electronic apparatus including a cover and an assembly including substantially all of the apparatus's circuitry, wherein the cover is a one-piece moulding and said assembly is embedded within the cover.

2. An apparatus according to claim 1, wherein the cover is moulded from a polymer material.

10 3. An apparatus according to claim 2, wherein the polymer material is a self-skinned foam polymer material.

4. An apparatus according to claim 1, wherein the cover has an aperture revealing a display.

15 5. An apparatus according to claim 4, including a manually operable electronic input device, wherein said input device is located within said aperture.

6. An apparatus according to claim 1, including a manually operable electronic input device, wherein said input device is located within an aperture in said cover.

20 7. An apparatus according to claim 1, including a user interface assembly, comprising a window and the keys of a keypad, and a printed circuit board, having electronic components including a display device mounted thereto, wherein the user interface assembly is glued to the printed circuit board such that the window is aligned with the display device and the whole is substantially embedded within the cover.

30 8. A portable radio device according to claim 1.

9. A mobile telephone according to claim 8.

10. A portable electronic apparatus comprising a one-piece cover.

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11. An apparatus according to claim 10, including a circuit within the cover and an electrical contact within the material of the cover for connecting said circuit to an external circuit.
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12. An apparatus according to claim 10, wherein the cover is moulded from a polymer material.
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13. An apparatus according to claim 12, wherein the polymer material is a self-skimming foam polymer material.
14. An apparatus according to claim 10, wherein the cover has an aperture revealing a display.
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15. An apparatus according to claim 14, including a manually operable electronic input device, wherein said input device is located within said aperture.
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16. An apparatus according to claim 10, including a manually operable electronic input device, wherein said input device is located within an aperture in said cover.
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17. An apparatus according to claim 10, including a user interface assembly, comprising a window and the keys of a keypad, and a printed circuit board, having electronic components including a display device mounted thereto, wherein the user interface assembly is glued to the printed circuit board such that the window is aligned with the display device and the whole is substantially embedded within the cover.
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18. A portable radio device according to claim 10.
19. A mobile telephone according to claim 18.
20. A method of manufacturing a portable electronic apparatus, the method comprising placing a sub-assembly, including an electronic circuit, in a mould and

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injecting a polymer material into the mould such that the sub-assembly is substantially embedded in the polymer material.

21. A method according to claim 20, wherein the polymer material comprises a self-skinning foam material.
22. A method according to claim 20, wherein the sub-assembly is placed in contact with a feature of a wall of the mould so that an aperture is formed in the moulded polymer material.
- 10 23. A method according to claim 22, wherein the sub-assembly includes a display and the sub-assembly is placed in contact with a feature of a wall of the mould such that the display is visible through the aperture.
- 15 24. A method according to claim 22, wherein the sub-assembly includes a manually operable electronic input device and the sub-assembly is placed in contact with a feature of a wall of the mould such that the input device is operable through the aperture.
- 20 25. A method according to claim 20, wherein the sub-assembly and the mould are configured such that an electrical contact is held within the polymer material after moulding for connecting said circuit to an external circuit.
26. A method according to claim 20, including gluing a user interface assembly, comprising a window and the keys of a keypad to a printed circuit board, having electronic components including a display device mounted thereto, to form said sub-assembly.
- 30 27. A method of manufacturing a portable radio device, the method being in accordance with claim 20.
28. A method of manufacturing a mobile telephone, the method being in accordance with claim 27.

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